

Application No.10/693,730

Reply to Office Action

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A process for the offset printing of a receiving medium with a functional pattern comprising in any order the steps of: applying a printing ink to a printing plate and wetting said printing plate with an aqueous fountain medium ~~containing~~ comprising a solution or a dispersion ~~containing which comprises~~ at least one moiety having at least ~~colouring~~ coloring, pH-indicating, whitening, fluorescent, phosphorescent, X-ray phosphor or conductive properties.
2. (Currently Amended) ~~The process~~ Process according to claim 1, wherein said moiety having at least ~~colouring~~ coloring, whitening, fluorescent, phosphorescent, X-ray phosphor or conductive properties is an intrinsically conductive polymer.
3. (Currently Amended) ~~The process~~ Process according to claim 2, wherein said intrinsically conductive polymer is selected from the group consisting of polyanilines, polyaniline derivatives, polypyrroles, polypyrrole derivatives, polythiophenes and polythiophene derivatives.
4. (Currently Amended) ~~The process~~ Process according to claim 2, wherein said conductive polymer is a polymer or copolymer of a 3,4-dialkoxythiophene in which the two alkoxy groups may be the same or different or together represent an optionally substituted oxy-alkylene-oxy bridge.
5. (Currently Amended) ~~The process~~ Process according to claim 2, wherein said intrinsically conductive polymer is selected from the group consisting of: homopolymers of (3,4-methylenedioxy-thiophene), (3,4-methylenedioxythiophene) derivatives, (3,4-ethylenedioxythiophene), (3,4-ethylenedioxythiophene) derivatives, (3,4-propylenedioxythiophene), (3,4-(propylenedioxythiophene) derivatives, (3,4-butylenedioxythiophene) and (3,4-butylenedioxythiophene) derivatives and copolymers thereof.

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6. (Currently Amended) The process ~~Process~~ according to claim 1, wherein said aqueous fountain medium further ~~contains~~ comprises a polyanion.
7. (Currently Amended) The process ~~Process~~ according to claim 6, wherein said polyanion is poly(styrenesulfonate).
8. (Currently Amended) The process ~~Process~~ according to claim 1, wherein said aqueous fountain medium further ~~contains~~ comprises a di- or polyhydroxy- and/or carboxy groups or amide or lactam group containing organic compound.
9. (Currently Amended) The process ~~Process~~ according to claim 8, wherein said di- or polyhydroxy- and/or carboxy groups or amide or lactam group containing organic compound is selected from the group consisting of 1,2-propandiol, propylene glycol, diethylene glycol, N-methyl pyrrolidinone and di(ethylene glycol)ethyl ether acetate.
10. (Currently Amended) The process ~~Process~~ according to claim 8, wherein said process further ~~contains~~ comprises heating a step subsequent to printing in which said receiving medium within 10 minutes ~~of after printing is heated~~ to a temperature of 100 to 250°C.
11. (Currently Amended) The process ~~Process~~ according to claim 1, wherein said aqueous fountain medium further contains an aprotic organic compound with a dielectric constant ≥ 15 .
12. (Currently Amended) The process ~~Process~~ according to claim 11, wherein said process further ~~contains a step subsequent to printing in which~~ comprises heating said receiving medium within 10 minutes ~~of after printing is heated~~ to a temperature of $\leq 150^\circ\text{C}$.
13. (Currently Amended) The process ~~Process~~ according to claim 1, wherein said aqueous fountain medium further ~~contains~~ comprises a non-ionic or anionic surfactant.

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14. (Currently Amended) ~~The process~~ Process according to claim 1, wherein said aqueous fountain medium has a viscosity at 25°C after stirring to constant viscosity of 30 mPa.s as measured according to DIN 53211.
15. (Currently Amended) ~~The process~~ Process according to claim 1, wherein said aqueous fountain medium ~~contains~~ comprises a dye and/or a pigment such that the ~~colour~~ color tone of the ink and ~~the background~~ color tone of the aqueous fountain medium cannot be distinguished by the human eye when applied onto a receiving medium.
16. (Currently Amended) ~~The process~~ Process according to claim 1, wherein said printing ink ~~contains~~ comprises a dye and/or a pigment such that the ~~colour~~ color tone of the ink and ~~the background~~ color tone of the aqueous fountain medium cannot be distinguished by the human eye when applied onto a receiving medium.

This listing of claims replaces all prior versions, and listings, of claims in the application.